

# DOUBLE DIODE OUTPUT PENTODE

# CBL31

High-sensitivity output pentode for use in A.C. mains-operated equipment, and combined with twin diodes.

## HEATER

This valve is suitable for DC/AC operation.

$V_h$	44.0	V
$I_h$	0.2	A

## CAPACITANCES

$C_{ad'-k}$	3.5	$\mu F$
$C_{ad''-k}$	3.5	$\mu F$
$C_{ad'-ad''}$	$\leq$ 0.5	$\mu F$
$C_{ad'-g1}$	$\leq$ 0.2	$\mu F$
$C_{ad''-g1}$	$\leq$ 0.2	$\mu F$

## OPERATING CONDITIONS

$V_a$	200	V
$V_{g2}$	200	V
$V_{g1}$	-8.5	V
$I_a$	45	mA
$I_{g2}$	6	mA
$g_m$	8	mA/V
$r_a$	35,000	ohms
$R_a$	4,500	ohms
$V_{in}$ rms	5	V
$V_{in}$ rms ( $W_{out}=50$ mW)	0.5	V
$W_{out}$	4	W
$D_{tot}$	10	$^\circ C$
$R_k$	167	ohms

## LIMITING VALUES

$V_a(b)$ max.	550	V
$V_a$ max.	250	V
$w_a$ max.	9	W
$I_k$ max.	70	mA
$V_{g2(b)}$ max.	550	V
$V_{g2}$ max.	250	V
$w_{g2}$ max.	2	W
$V_{g1}$ max. ( $I_{g1} \Rightarrow 0.3 \mu A$ )	-1.3	V
$R_{g1}$ max. (self bias)	1	megohm
$V_{h-k}$ max.	125	V
$R_{h-k}$ max.	5,000	ohms
$V_{ad'}$ max.	200	V
$V_{ad''}$ max.	200	V
$I_{ad'}$ max.	0.8	mA
$I_{ad''}$ max.	0.8	mA
$V_{ad'}$ max. ( $I_{ad'} = +0.3 \mu A$ )	-1.3	V
$V_{ad''}$ max. ( $I_{ad''} = +0.3 \mu A$ )	-1.3	V

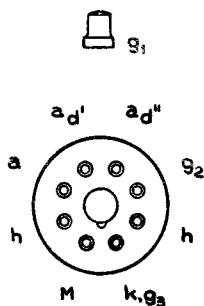
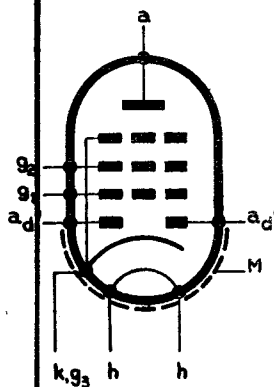


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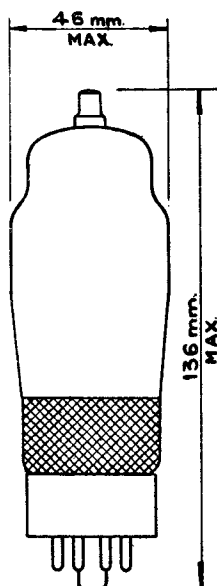
*High-sensitivity output pentode for use in A.C. mains-operated equipment, and combined with twin diodes.*

ARRANGEMENT OF ELECTRODES  
AND BASE CONNECTIONS



OCTAL BASE

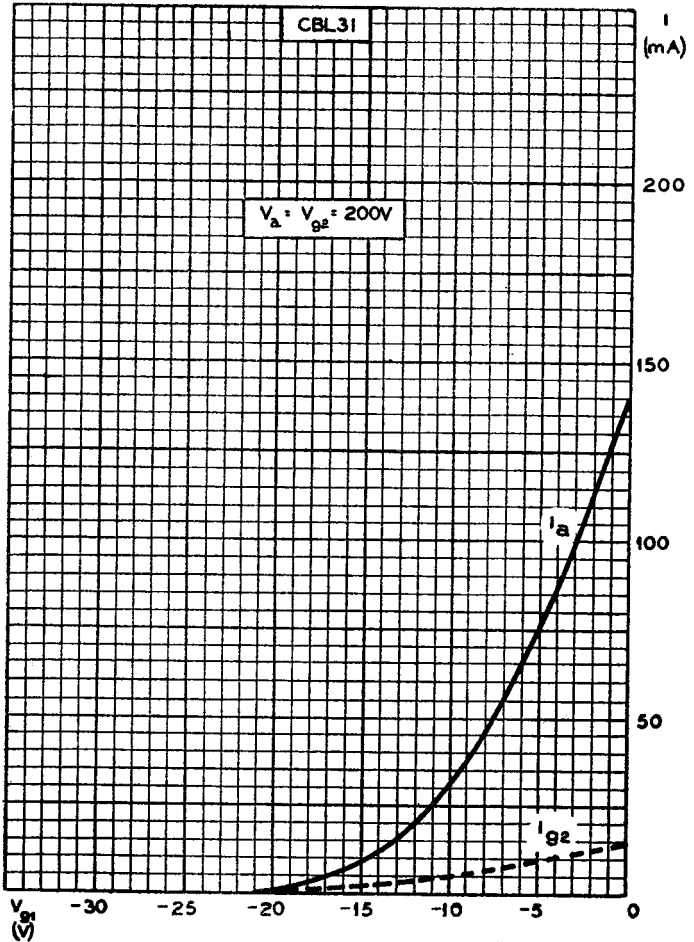
DIMENSIONS



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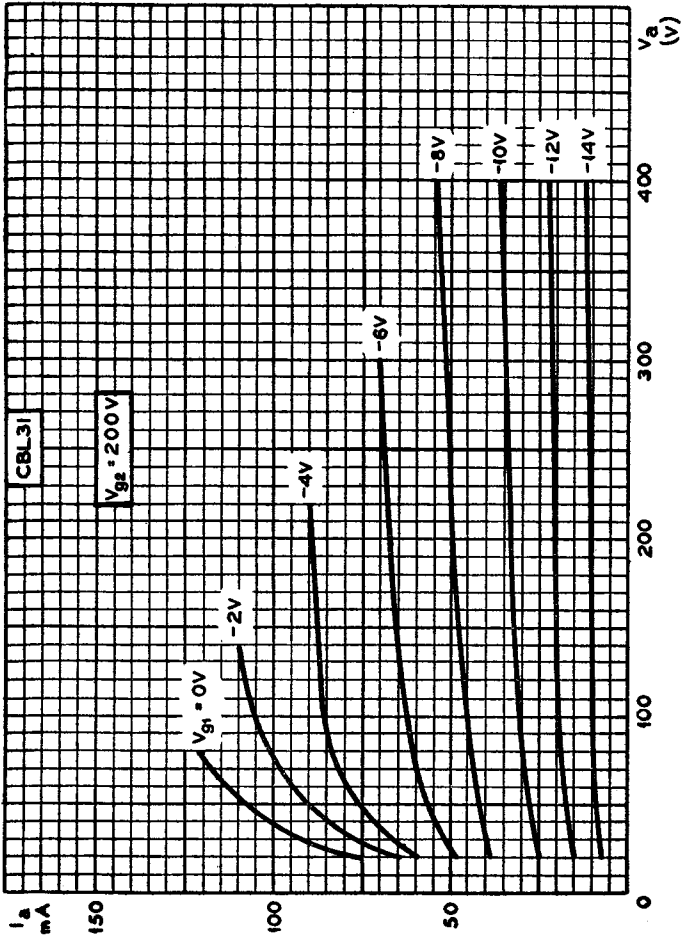
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High-sensitivity output pentode for use in D.C./A.C. mains-operated equipment and combined with twin diodes.

